DAIRYLAND POWER COOPERATIVE

La Crosse, Wisconsin 54601 January 28, 1980

In reply, please refer to LAC-6765

DOCKET NO. 50-409

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Mr. James G. Keppler Regional Director U. S. Nuclear Regulatory Commission Directorate of Regulatory Operations Region III 799 Roosevelt Road Glen Ellyn, Illinois 60137

SUBJECT: DAIRYLAND POWER COOPERATIVE LA CROSSE BOILING WATER REACTOR (LACBWR) PROVISIONAL OPERATING LICENSE NO. DPR-45 IE BULLETIN NO. 80-01 - OPERABILITY OF ADS VALVE PNEUMATIC SUPPLY

Reference: (1) NRC Letter, Keppler to Linder, dated January 11, 1980, Enclosing IE Bulletin No. 80-01.

Dear Mr. Keppler:

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In response to your letter (Reference 1) which contained the subject bulletin which specified actions to be taken by licensees of GE BWR facilities with an operating license which use a pneumatic operator for ADS function, we are submitting the following comments.

- LACBWR is not a GE BWR nor does it have an ADS (Automatic Depressurizing System).
- LACBWR has a manual depressurizing system which is described as follows.

The LACBWR Manual Depressurization System (MDS) consists of the shutdown condenser (considered only as part of the piping system), the steam inlet values, vent values, piping, and controls shown on the enclosed Figure. During depressurization, steam from the 10-inch main steam line passes through a 6-inch line, two parallel steam inlet control values (60-25-001 and 60-25-011) and through the shutdown condenser. The steam leaving the shutdown condenser passes through the 6-inch condensate return line and through the vent line containing two parallel vent control values (62-25-013 and 62-25-014). These vent values discharge the steam directly to the containment building atmosphere. The principal function of these vent values is to equalize reactor vessel and containment pressure following a LOCA.

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Use of this depressurization system is not automatic but requires manual operation of hand switches located in the Control Room to open at least one of two steam inlet valves and one of two vent valves.

We have reviewed the action requirements with respect to our installed manual depressurization system and submit the following results of that review.

 Determine if your facility has installed hard-seat check valves to isolate the ADS accumulator system from the pneumatic supply system.

DPC RESPONSE:

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No check valves are used in the depressurization system.

 Determine if periodic leak tests have been performed on your ADS accumulator systems to assure emergency pneumatic supply for the FSAR-required number and duration of valve operations.

DPC RESPONSE:

Air pressure of at least 80 psig is normally applied to the steam inlet valve operators at all times to keep the valves closed. The air is from the plant control air system with a backup air compressor located just outside the Containment Building in the tunnel area. Nitrogen pressure of 40 psig is normally applied to the depressurization/vent valve operators at all times to keep the depressurization/ vent valves closed. The pressure is supplied through a regulator from one of two storage bottles. Supply and regulated pressures together with control air pressures are verified and recorded daily, therefore leakage from either penumatic system is readily detected.

From the description of the Manual Depressurization System, it can be concluded that the required number of operations is one, and that the duration is continuous once the valves are opened to activate the system.

- 3. Review seismic qualifications of the ADS pneumatic supply system:
 - (a) from accumulator system isolation check valve to ADS valve operator,
 - (b) from isolation valve outside containment up to ADS accumulator check valve.

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DPC RESPONSE:

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- 3.(a) There is no seismic qualifications on either the air or nitrogen supply systems. There is a backup air compressor for control air inside the Containment Building.
- 3.(b) The entire nitrogen supply system, including supply bottles, is located within Containment Building. The total length of nitrogen tubing to the two depressurization valve operators is less than 20 feet.

The control air supply system within containment consists of a header and numerous branches to various equipment. The backup air compressor (on emergency power bus) is located in the tunnel area outside the Containment Building, using about 20 feet of connecting piping to the control air supply header.

4. Based upon determination of items 1, 2 and 3 above, evaluate operability of the ADS for the conditions under which it is required to be operable including a seismic event. If operability cannot be established adhere to appropriate Technical Specification action statement.

DPC RESPONSE:

Pertinent Technical Specification sections are listed below:

- "1.4.1.1 The shutdown condenser system shall normally be isolated from the reactor by air-operated automatic control valves. Upon abnormal conditions as specified in items 3, 9, and 10 in Table 1, these valves shall open automatically and shall cause the system to function; and these valves shall close automatically when the abnormal conditions have been corrected. This action shall be subject to manual override.
- "2.4.2.3 Redundant steam inlet valves to the condenser shall open immediately on receipt of the actuating signal, and redundant condensate return valves from the condenser shall open approximately 10 sec. later. The steam inlet valves shall be capable of manual positioning, and the condensate return valves shall be capable of manual opening.
- "2.4.2.4 Two parallel control valves located at the shutdown condenser condensate discharge shall be capable of remote manual operation to vent the primary system directly to the reactor building atmosphere under emergency conditions. These valves shall not be caused to open by any fault condition which also causes the steam inlet control valves to open.

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"4.2.2.19 The shutdown condenser system shall be available for automatic operation except at times when the reactor is shut down and the primary system depressurized to approximately atmospheric pressure. Manual valves in the shutdown condenser system shall be locked in that position which will not impair system capability when automatic operability is required.

"5.2.6 The shutdown condenser system control valves shall be tested at least quarterly to demonstrate their operability. The integrated system shall be tested for proper operation annually. In addition, the condenser tube bundle shall be pressurized to greater than 1250 psig and tested for leakage annually."

Additionally, the two depressurization/vent valves are cested for proper operation annually.

Since the basic active components of the MDS (the steam inlet valves and the vent control valves) are redundant and are capable of operating in the containment building environment during and following a LOCA, the manual depressurization system is an Engineered Safeguard System. The valve control circuits and the control power supplies meet single failure and common mode failure criteria.

Considering the information presented in items 1, 2 and 3 of the Bulletin and in view of the applicable Technical Specifications, we believe that the system is operable.

5. Provide an immediate notification to the NRC in the event the ADS is found to be inoperable.

DPC RESPONSE:

The Manual Derressurization System is considered operable.

6. Provide a response in writing by January 18, 1980, for those facilities which use a pneumatic operator for ADS function.

DPC RESPONSE:

Authorization for this response to be submitted beyond the due date was granted by Mr. Kenneth Ridgway of your office to Mr. Hugh Towsley on January 21, 1980.

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If there are any questions concerning this response, please contact us.

Very truly yours,

DAIRYLAND POWER COOPERATIVE

Frank Linder /al

Frank Linder, General Manager

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Attachment: Sketch of LACBWR Manual Depressurization System.

cc: U. S. Nuclear Regulatory Commission Office of Inspection and Enforcement Division of Reactor Operations Inspection Washington, D. C. 20555



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